3D Measurement of Surface Texture Parameters

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The article focuses on the issue of 3D measuring surface parameters using optical measuring devices, designing a statistical experiment and following evaluation. The development non-contact surface texture measurement methods lead to new possibilities for describing the surface of machine parts. But cannot be to rely only on the obtained the measured parameters values, and it is true that it is necessary to prepare the measurement. The processes of measurement enter many influences. Some of these effects can manage it, and then we call those factors. At the output of the receive process feedback. Method DOE (Design of Experiments) is used to locate a combination of factors that provide the most favorable response. The proposal described experiment compares and evaluates various surface roughness parameters of two different materials and machining technologies samples. Measurements were done by two operators, and each measurement was carried out three times. Measurement took place on a confocal laser microscope LEXT OLS 3000.

Keywords: surface, measurement, DOE, roughness

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